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**(54) MANUFACTURE OF LITHIUM NIOBATE OR LITHIUM TANTALATE**

**(57)Abstract:**

**PURPOSE:** To carry out continuous and efficient heat melting in a crucible and to obtain high purity lithium niobate or lithium tantalate in a high yield by adding lithium formate to niobium pentaoxide or tantalum pentaoxide, granulating them, and melting the granules by heating.

**CONSTITUTION:** To niobium pentaoxide or tantalum pentaoxide are added a reaction equiv. or more of lithium formate and 0.1W1.2 times as much water as lithium formate, and they are kneaded. The kneaded material is granulated into an arbitrary shape such as a spherical or cylindrical shape, and the granules are heated or air-dried and calcined at 250W600°C to decompose and volatilize formic acid. The resulting oxide granules withstanding  $\geq 2\text{kg/cm}^2$  pressure are continuously fed to a bath heated to the melting temp. of lithium niobate, i.e., 1,253°C or above or to the melting temp. of lithium tantalate, i.e., 1,650°C or above. Thus, the desired lithium niobate or lithium tantalate is obtd.

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